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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,437	12/28/2001	Keith A. Riha	TRM TR000024 DIV	9561
32047	7590	12/21/2007	EXAMINER	
GROSSMAN, TUCKER, PERREAULT & PFLEGER, PLLC			DANIELS, MATTHEW J	
55 SOUTH COMMERICAL STREET			ART UNIT	PAPER NUMBER
MANCHESTER, NH 03101			1791	
			MAIL DATE	DELIVERY MODE
			12/21/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/033,437	RIHA ET AL.	
	Examiner	Art Unit	
	MATTHEW J. DANIELS	1791	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 October 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Rejections set forth previously are withdrawn in view of the amended claims.
2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Filion *et al.* (US Patent No. 5,952,630) in view of Vorst *et al.* (US Patent No. 4,401,992).

Regarding Claim 1, Filion *et al.* ('630) teach the basic claimed process including, providing a flexible (deformable) thermoplastic PVC (polymer) outer skin (26b') (see col. 3, line 63) formed by vacuum forming (thermoforming) (col. 5, lines 56-57), a foam layer (26b'') bonded to said skin, a substrate layer (22b) bonded to said foam layer (26b'') and at least one switch (30b) embedded in said foam layer (26b'') that is force activated (see Figure 5 and, col. 3, lines 60-64; col. 5, lines 31-34 and lines 54-61; col.6, lines 20-21). Further, Filion *et al.* ('630) specifically teach that *any* (emphasis added) suitable foam material may be used as taught in U.S. Patent No. 5,232,957, which is incorporated by reference (col. 6, lines 1-7), and as such, under MPEP §2163.07, Filion *et al.* ('630) suggests a polyurethane foam. Also note that Filion *et al.* ('630) incorporates by reference USPN 5,340,149 at Col. 4, line 1, which specifically teaches urethane foam at Col. 2, line 11-12. Further, Filion *et al.* ('630) specifically teach other

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“any number of known materials...described in U.S. Patent Nos. 5,448,028...”, which is incorporated by reference (col. 6, lines 1-7), and as such, under MPEP §2163.07, Fillion *et al.* ('630) teach a thermoplastic olefin or urethane for making the flexible, outer skin (26b') (see col. 3, lines 1-19 of U.S. Patent Nos. 5,448,028). Specifically, therefore, Fillion *et al.* ('630) teach the thermoplastic olefins at Col. 3, lines 10-11 of U.S. Patent No. 5,448,028 and the thermoplastic polyurethanes and thermoplastic olefins at Col. 4, lines 1-3 of U.S. Patent No. 5,340,149. Furthermore, Fillion *et al.* ('630) teach marking of said outer skin layer (see Figure 1). Fillion *et al.* ('630) incorporate by reference USPN 5,448,028 to Fillion *et al.* ('028) at Col. 4, line 1. Fillion *et al.* ('028) teach one or more membrane switches (Fig. 1) which include switch arms (Fig. 2, item 34) capable of engaging electrical connectors (40, 44, 42, 38), wherein upon application of a force the skin layer deforms to enable the switch arm to contact the electrical connectors (implicit). It is noted that at least Fillion *et al.* ('028) teach that a marking is placed on the skin (“MIRROR” in Fig. 1).

Regarding claim 1, although Fillion *et al.* ('630) teach a flexible (deformable) thermoplastic (polymer) outer skin (26b'), Fillion *et al.* ('630) does not teach that said skin is colored. However, making a colored flexible (deformable) thermoplastic skin is well known. Therefore, it would have been obvious for one of ordinary skill in the art to provide a colored thermoplastic skin layer in the process of Fillion *et al.* ('630) because of known advantages that color provides such as improved aesthetics, hence providing for an improved product.

Further regarding claim 1, although Fillion *et al.* ('630) teaches marking of said outer skin layer (see Figure 1), Fillion *et al.* ('630) do not teach a process of marking said outer skin layer using a laser. However, laser marking a thermoplastic material is well known as evidenced by

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Vorst *et al.* ('992) who teach a material consisting of a polyolefin (polypropylene) and a pigment (Col. 3, lines 33-39), which is marked with a laser (Cols. 1-3, especially Col. 3, lines 30-60).

Further regarding the claim amendments filed 3 October 2007 which appear to be drawn to the exclusion of additives and the transparent coating of Fillion *et al.* ('630), it is submitted that Vorst *et al.* ('992) require no additives and the transparent coating of Fillion *et al.* ('630) is optional (Fig. 5, and "may" at Col. 6, line 10 or 11).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Vorst *et al.* ('992) into that of Fillion *et al.* ('630) because Fillion *et al.* ('630) explicitly teaches and suggests indicia (Fig. 1), and Vorst *et al.* ('992) provides a method for fabricating the desired indicia where the contrast mark on the surface is distinguished from the remaining material (Col. 1, lines 59-63).

### ***Response to Arguments***

3. Applicant's arguments filed 3 October 2007 have been fully considered but they are not persuasive. The arguments appear to be on the following grounds:

a) Welz's method is "not legible" when the laser absorber additives are used.

4. These arguments are not persuasive for the following reasons:

a) Vorst *et al.* ('992) requires no additives. With regard to the transparent coating of Fillion *et al.* ('630), it is optional in view of the teachings contained in the reference.

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***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW J. DANIELS whose telephone number is (571)272-2450. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJD 12/20/07

*MJD*

*ca f*  
CHRISTINA JOHNSON  
SUPERVISORY PATENT EXAMINER